

**WHAT IS CLAIMED IS:**

1       1. A system for scheduling meetings using plural heterogeneous  
2 resources, the system comprising:  
3            a user interface operable to accept meeting constraints;  
4            a resource properties database having plural heterogeneous resources, each  
5              resource having associated properties;  
6            a scheduled events database storing schedules for the heterogeneous resources;  
7            a configuration engine interfaced with the user interface and resource  
8              properties database, the configuration engine operable to apply the  
9              meeting constraints and the resource properties to priority rules that  
10             generate an ordered list of heterogeneous resource sets, each set having  
11              a valid configuration that satisfies the meeting constraints; and  
12            an availability engine interfaced with the configuration engine and the  
13              scheduled events database, the availability engine operable to select  
14              heterogeneous resources from the ordered list based on the scheduled  
15              availability of the resources.

1       2. The system of Claim 1 wherein the configuration engine is further  
2 operable to order the list of heterogeneous resources according to a cost function, the  
3 list ordered with the greatest priority given to the set of heterogeneous resources  
4 having the least cost to satisfy the meeting constraints.

1       3. The system of Claim 2 wherein the configuration engine cost function  
2 adjusts to user-selected weights for one or more meeting constraints.

1       4. The system of Claim 3 wherein the user-selected weights comprise one  
2 or more of meeting timing, capacity and locality.

1       5. The system of Claim 1 wherein the availability engine is further  
2 operable to:  
3            identify resources of the priority list that are unavailable to satisfy meeting  
4            constraints due to a scheduled use; and

5 monitor the unavailable resources for subsequent availability to satisfy the  
6 meeting constraints.

1       6. The system of Claim 1 further comprising an access controller  
2 interfaced with the availability engine and the resource properties database, the access  
3 controller operable to restrict scheduling of one or more resources having limited  
4 access properties.

1       7. The system of Claim 6 wherein the limited access property comprises  
2 an authorization code to exceed a predetermined cost associated with resource use.

1       8. The system of Claim 6 wherein the access controller is further operable  
2 to override a scheduled use of a resource to satisfy meeting constraints having a  
3 predetermined priority.

1       9. The system of Claim 6 further comprising a reschedule engine  
2 operable to automatically reschedule overridden scheduled uses.

1       10. The system of Claim 6 further comprising a notification engine  
2 interfaced with the availability and reschedule engines, the notification engine  
3 operable to automatically notify attendees of a meeting scheduled according to a set  
4 of resources of the ordered list and to automatically notify attendees of rescheduling.

1       11. The system of Claim 1 further comprising a resource engine interfaced  
2 with the scheduled events database and the heterogeneous resources, the resource  
3 engine operable to initiate, terminate and track use of the heterogeneous resources in  
4 compliance with the schedule.

1       12. The system of Claim 1 wherein the heterogeneous resources comprise  
2 at least video conference resources, audio conference resources and network  
3 resources.

1           13. A method for scheduling meetings using plural heterogeneous  
2 resources, the method comprising:  
3           identifying scheduling constraints associated with the meeting;  
4           ordering in priority a list of plural sets of candidate heterogeneous resources,  
5           each set having a valid configuration that satisfies the scheduling  
6           constraints;  
7           selecting a set of heterogeneous resources from the ordered list;  
8           scheduling the heterogeneous resources to support the meeting;  
9           automatically notifying attendees of the schedule; and  
10          automatically initiating one or more of the heterogeneous resources according  
11           to the schedule.

1           14. The method of Claim 13 further comprising:  
2           identifying one or more biasing weights associated with one or more  
3           scheduling constraints; and  
4           ordering the priority list according to the biasing weights.

1           15. The method of Claim 14 wherein ordering further comprises:  
2           estimating a cost associated with each set of heterogeneous resources; and  
3           providing greater priority to sets having smaller costs.

1           16. The method of Claim 13 wherein automatically notifying attendees  
2 further comprises:  
3           associating one or notification parameters with each attendee; and  
4           selecting one or more notification medium for each attendee based on the  
5           notification parameters associated with the attendee.

1           17. The method of Claim 16 wherein the notification medium comprises a  
2 telephone sending a computer generated voice reminder.

1           18.     The method of Claim 17 wherein the notification parameter comprises  
2     a predetermined quantification of user forgetfulness and the notification further  
3     comprises cell phone call within a predetermined time of the scheduled meeting.

1           19.     The method of Claim 13 further comprising limiting access to  
2     predetermined heterogeneous resources according to one or more required  
3     authorizations.

1           20.     The method of Claim 1 wherein the heterogeneous resources comprise  
2     at least video conference resources, audio conference resources and network  
3     resources.